

News Release

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Argonne to host next-generation battery symposium May 3-4

Online registration is now open

ARGONNE, Ill. (April 19, 2010) – The U.S. Department of Energy's Argonne National Laboratory will host on May 3-4 the symposium Research Opportunities in Electrochemical Energy Storage Beyond Lithium Ion: Computational Perspectives to discuss advanced battery technologies for transportation, electronics and renewable energy applications.

Registration is open and journalists may attend.

The next generation of high-performance battery technologies is likely to greatly exceed the storage capacity limitations associated with existing lithium-ion batteries. They could potentially store as much energy as a tank of gasoline and have a capacity for energy storage that is five to 10 times greater than that of Li-ion batteries. However, technical challenges must be overcome to realize the promise of Lithium-air, or Li-air, battery technologies.

Scientists from industry, academia and national laboratories will discuss these challenges during the symposium and how computational science and engineering will complement laboratory research to help resolve them, accelerate the pace of technology development and improve the safety and stability of advanced energy storage technologies beyond Li-ion.

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Symposium speakers and topics include:

- Dr. Khalil Amine, Argonne National Laboratory, "Advances in Safe, High-Energy Lithium Batteries"
- Prof. John Newman, University of California, Berkeley, "Modeling Next-Generation Lithium Batteries"
- Dr. Alan Gara, IBM Watson Research Laboratory, "Exascale Computing as an Opportunity for Predictive Battery Simulation"
- Dr. Alessandro Curioni, IBM Zurich Research Laboratory, "Fundamental Lithium-Air Cathode Reaction Mechanisms"
- Dr. Jens Hummelshøj, TU-Denmark, "Oxygen Electrode Reactions in the Lithium-Air Battery"

Symposium information, agenda and registration are available at http://events.cels.anl.gov/ees-computational2010/.

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